Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-13. Canceled.

14.(currently amended) A GMR read head device, comprising:

a lower dielectric layer on a lower magnetic shield layer;

on the lower dielectric layer, a seed layer on which is a buffer layer;

on the buffer layer, ~~depositing~~ a free layer on which is a layer of non-magnetic material;

on the non-magnetic layer, a two layer laminate that serves as a pinned layer;

on the pinned layer, a first capping layer having an upper surface;

on the first capping layer a lead overlay layer on which is a second capping layer;

centrally located within the device, a first trench that extends downwards through the lead overlay layer as far as a first distance below the upper surface of the first capping layer, said first trench ~~and~~ having a 45 degree sidewall;

a pair of second trenches, symmetrically disposed on either side of the first trench, separated from said first trench by a spacing, that extend downwards a second distance into the first dielectric layer, said pair of second trenches ~~and~~ having sloping sidewalls;

~~in said second trenches;~~ a layer of hard bias material in ~~that partly fills~~ the second trenches ~~and~~ that fully coats said sloping sidewalls and that partly overlaps said second capping layer;

a layer of conductor lead material that exactly overlays the layer of hard bias material and that overfills the second trenches; and

a second dielectric layer that covers ~~over the entire device, including~~ the first trench, the second ~~first~~ capping layer, and the conductor lead layer.

15.(original) The device described in claim 14 wherein the seed layer is selected from the group consisting of nickel-chromium and nickel-iron-chromium.

16.(currently amended) The device described in claim 14 wherein the buffer layer further comprises a layer of ruthenium between ~~about~~ 5 and 7 Angstroms thick and a layer of copper between ~~about~~ 5 and 10 Angstroms thick.

17.(original) The device described in claim 14 wherein the multi-layer laminate that is suitable for use as a pinned layer further comprises, in order, layers of cobalt-iron, ruthenium, cobalt-iron, and manganese platinum.

18.(currently amended) The device described in claim 14 wherein the first capping layer is selected from the group consisting of tantalum, titanium, and tungsten and is between ~~about~~ 50 and 70 Angstroms thick.

19.(currently amended) The device described in claim 14 wherein the lead overlay layer is selected from the group consisting of gold and copper, and is between ~~about~~ 200 and 300 Angstroms thick.

20.(currently amended) The device described in claim 14 wherein the second capping layer is selected from the group consisting of tantalum, titanium, tungsten, and silicon and is between ~~about~~ 150 and 250 Angstroms thick.

21.(currently amended) The device described in claim 14 wherein said first distance below the upper shield and the surface of the first capping layer is between ~~about~~ 140 and 160 Angstroms.

22.(currently amended) The device described in claim 14 wherein said second distance into the first dielectric layer is between ~~about~~ 30 and 40 Angstroms.

23.(currently amended) The device described in claim 14 wherein the spacing that separates the first trench from each of the second trenches is between ~~about~~ 0.1 and 0.15 microns.

24.(original) The device described in claim 14 wherein the first trench has sidewalls that slope by no more than 45 degrees away from vertical and the second trenches have sidewalls that slope by at least 60 degrees away from vertical.